

Title (en)

Electro-hydraulic actuator and method for controlling actuator position

Title (de)

Elektrohydraulisches Stellglied und Regelungsverfahren eines Stellglieds

Title (fr)

Vérin de positionnement électrohydraulique, et procédé pour le réglage de la position du vérin

Publication

EP 1067293 A2 20010110 (EN)

Application

EP 00305750 A 20000707

Priority

US 14324399 P 19990709

Abstract (en)

A fluid actuator (10) achieves precise placement without external feedback by employing a spool (44) slidable within a piston (20). The relative positions of the piston (20) and the spool (44) determine whether pressurized fluid is applied to extend the piston, to retract the piston, or to maintain the position of the piston. The spool (44) is positioned by balancing a spring (46) force on one end with a variable pressure force on the other end, the variable pressure fluid for providing the variable pressure force being supplied by a pulse width modulation valve (28) which is mounted in the actuator (10). The pressure of the fluid supplied by the modulation valve (28) is a function of an input such as an electrical signal received by the valve. The position of the piston (20) is determined by the position of the spool (44). In an exemplary embodiment, an actuator positions the vanes of a turbocharger of a motor vehicle engine. The pressurized fluid used is the crankcase oil of the engine. <IMAGE>

IPC 1-7

F15B 9/12; **F15B 15/20**

IPC 8 full level

F15B 9/12 (2006.01); **F15B 15/20** (2006.01)

CPC (source: EP)

F15B 9/12 (2013.01); **F15B 15/202** (2013.01)

Cited by

CN106949114A; DE102015118839A1; DE102015118839B4; US8992667B2; US9650927B2; US10422360B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1067293 A2 20010110; **EP 1067293 A3 20031119**

DOCDB simple family (application)

EP 00305750 A 20000707